

What is claimed is:

1. A vehicle antenna comprising:

a dielectric substrate having a surface;

5 a first radiator disposed on the surface of the dielectric substrate and having an aperture therein at which the surface is partially exposed;

a first ground conductor disposed on the surface of the dielectric substrate and surrounding the first radiator while providing a substantially loop-shaped space between the first radiator and the first ground conductor;

10 a second radiator disposed on the surface of the dielectric substrate and in the aperture of the first radiator; and

a second ground conductor disposed on the surface of the dielectric substrate and surrounding the second radiator while providing another substantially loop-shaped space between the second radiator and the second ground conductor.

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2. A vehicle antenna according to claim 1, wherein the dielectric substrate is a glass of a vehicle.

3. A vehicle antenna according to claim 1,

20 wherein the first radiator and the first ground conductor together form a first patch antenna, and the second radiator and the second ground conductor together form a second patch antenna, and

wherein a second resonance frequency of a radio wave which is handled by the second patch antenna is set to be greater than a first resonance frequency of a radio wave
25 which is handled by the first patch antenna.

4. A vehicle antenna according to claim 3, wherein the second resonance frequency is set so as not to be a multiple of the first resonance frequency.

5 5. A vehicle antenna according to claim 3, wherein a common amplifying circuit is provided for the first and second patch antennas.